



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

March 8, 1963

Mr. Eric P. Newman  
6450 Cecil Street  
St. Louis, Mo.

Dear Mr. Newman:

In trying to track down the exact method used by Ben Franklin to print impressions of leaves in currency, it was with considerable interest that I ran across your article "Counterfeit Continental Currency Goes to War" in which you proved that Henry Phillips, in his Historical Sketches... (p.202) was incorrect in accepting the copperplate [belonging to Joseph J. Mickley] as genuine.

The question still remains, how did Franklin and others print these leaves? I have several theories that include a primitive form of stereotype, or a kind of "automatic writing", (even considered the possibility of soft ground etching) - but I have found no statement of just what the process was. None of the books on Franklin, or those on Colonial printing, or the books on counterfeiting take into account the difficulty of printing an exact duplication of a natural leaf. Except for you, no one has bothered to establish the fact that the plates were made in relief instead of intaglio (copperplate).

Have you ever found the answer to the question of just how these relief plates were made, and in what material they were made? It is an intriguing bit of Franklinaiana that has apparently been overlooked. It is understandable that Franklin would be loath to disclose his secret for confounding counterfeiters.

It would be interesting to hear your views if you would care to share them.

Sincerely yours,

Kneeland McNulty  
Associate Curator of Prints

March 13, 1963

Mr. Cleveland McQuitty, Associate Curator  
Philadelphia Museum of Art  
P. O. Box 7646  
Philadelphia, Pa.

Dear Mr. McQuitty:

Receipt is acknowledged of your inquiry as to the method used by Benjamin Franklin and his successors in printing impressions of leaves in currency.

It so happens that Colonial Williamsburg has asked us a similar problem with respect to the coat of arms used in Virginia currency in the 1757-62 period.

I am enclosing for your convenience a copy of my original article, "Counterfeit Continental Currency Dies in War" and a supplemental discussion as to a leaf design on a copper plate in the Pennsylvania Historical Society.

First, I wish to advise you that so far as I know, no identification of the types of leaf design used over the many years in Pennsylvania Colonial Currency or the Continental Currency has been published or even worked out. Each denomination usually had a separate leaf design and these were changed from time to time. These leaf designs in my opinion were type metal cuts and were probably castings made from an intaglio. Whether the intaglio was copper or other material, I do not know. If you wish to undertake a research project with us on this point, it would be most enlightening.

I believe you should consult Edwin Wolf, of the Library Company of Philadelphia who is an expert on early American printing and who may be very helpful in establishing procedures used with respect to illustrations in books.

Let me hear from you after you have explored this avenue and by that time I will have assembled more data. We have available for study substantially all of the leaf design currency issued by Pennsylvania and the Continental Congress.

Yours very truly,

March 19, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art - Fairmount  
Benjamin Franklin Parkway at Twenty-Sixth St.  
P.O. Box 7646  
Philadelphia 1, Penna.

Dear Mr. McNulty:

I do not see how it is possible that the cuts were made by a crude form of stereotype from cast impressions of actual leaves. The background of each cut has been hatched in and many of the actual leaves which are illustrated are three dimensional and drawn in two dimensions.

We have available Continental currency, Pennsylvania currency and blue sheets in new condition. I do not believe these will support your theory.

There is a man in Philadelphia who could be very helpful to you, namely, Richard Hooper, 236 Rice's Mill Road, Wyncote, Pennsylvania, and he has in his collection adequate examples.

Other cuts on the Pennsylvania currency are obviously repetitive, particularly some on the front where the decorative vertical columns on each side are exactly the same even including mistakes.

If you find that neither Mr. Hooper or the Historical Society of Pennsylvania do not have examples which will serve your purpose, we will forward the same to you for study.

Very truly yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

ENM/atb



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

March 15, 1963

Mr. Eric P. Newman  
Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Mo.

Dear Mr. Newman:

Very many thanks for your letter and enclosures. The pamphlet and the article in Coin World I read with much profit in the Pennsylvania Historical Society library. I am very pleased to have copies for our archives here.

I certainly am interested in researching the problem of how the leaf cuts were made. I am taking a slightly different viewpoint from yours by examining the possibility that these cuts were made by a crude form of stereotype direct from cast impressions of actual leaves.

Could you tell me if some of the unsigned proof sheets on blue paper, which you mention in your pamphlet, would show the leaf side of the currency, and if they would be available locally in Philadelphia? It would be a great help to see proofs that are not soiled, rubbed, imperfect, and otherwise difficult to study.

Sincerely yours,

Kneeland McNulty  
Associate Curator of Prints



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

March 26, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Newman:

Enclosed are some galley proofs of material we are including in our forthcoming catalogue of "A World of Flowers" exhibition in which we have introduced examples of "nature printing", including Franklin's use of leaf imprints on currency.

Considering Franklin's interest in nature printing, his early imprint (1737) of a leaf in his Almanac (Cat. #145), and his interest in stereotyping experiments, it seems reasonable that he made casts of actual leaves for his currency designs.

It seems unlikely that these designs were engraved first, especially when one examines those pieces of currency that have a cloth-like textured background which, in some cases, have a definite curvature of the lines exactly as cloth ribbing would curve when stretched. An engraver would not normally simulate these curved lines.

I have talked to Mr. Hooper. He will bring some good proofs to show us Wednesday.

Many thanks for your interest.

Sincerely yours,

Kneeland McNulty  
Associate Curator of Prints

Mr. Eric P. Newman  
March 27, 1963

page two.

Also, Spawn is working on an 18th century Philadelphia book binder by the name of Robert Aitken. From Spawn's zerox copy of Aitken's Waste Book (i.e. account book) the original of which belongs to the Library Company, he brought to my attention the following items that have to do with Delaware currency. Perhaps this information will be of use to you in a different connection:

Robert Aitken's Waste Book at the Library Company of Philadelphia.

col. 339 Receipt: May 19, 1777  
James Adams Wilmington Cr. for  
engraving Plates of Paper Money 12--

col. 342 " June 11, 1777  
Cr. Mr. Jas. Adams for Engrav'd  
Borders of Money Delawr. State 12--

col. 337 Debt. April 30, 1777  
Mr. Jas. Adams printer Dr.  
To Engraving 8 plates 30s 12--

col. 339 " May 16, 1777  
Mr. Jas. Adams Printer Wilmn. Dr.  
To Engrg 4 plates 3d tickets, 4 - 4d  
4-6d. & 4-9d. tickets 2 Doll. Each 12--

Hope to see you this weekend.

Sincerely yours,

*Kneeland McNulty*

Kneeland McNulty  
Associate Curator of Prints

## NATURE PRINTING

144. BREITNALL, JOSEPH (American, died 1746)

*PRINTS OF LEAVES*, a collection of specimens of nature printing, bound in two folio volumes, one containing 130 pages and the other 103 pages of imprints, dating from 1731 to 1742. Lent by The Library Company.

Breitnall was an original member of the Junto. Franklin described him in his *Autobiography* as "a good-natured, friendly, middle-aged man . . . very ingenious in many little Knicknackereries and of sensible conversation." The scrapbooks above, described as "a large Collection of Prints of Leaves of Plants growing near Philadelphia" were given to the Library Company by his widow in 1746. The specimens of nature printing were made on sheets of paper, varying from about 6 x 7 to 17 x 30 inches, and printed with printer's ink. The sheets were folded in half and the inked leaf inserted, so that there would be an impress of the front and back of the leaf. Some were done with a roller (May 19, 1733) others "were done in my new Press which Joseph Watkins made and now brought Home, 2nd of May 1734." There are other interesting notes jotted down by Breitnall, for example: "Done July 18th 1742, when I impressed 6 or 8 Sheets more for my Frds [Friends] Kent, Bard, Pratt, Browne, Shoemaker, etc." On the page displayed is written: *Engraven by the Greatest and best Engraver in the Universe.*

145. FRANKLIN, BENJAMIN (American, 1706-1790)

*POOR RICHARD, AN ALMANAC FOR THE YEAR OF CHRIST, 1737.*

Printed by Benjamin Franklin, 8 vo, Philadelphia, 1737. Lent by the American Philosophical Society.

This pamphlet contains an imprint of a leaf of Rattlesnake Herb by nature printing together with a description by Breitnall of its curative properties as known to the Indians. It is one of the earliest examples of the publication of nature printing in quantity with letterpress, antedated only by Kniphof's publication of 1733. It argues well for the technological competence of the American Colonies and for Franklin's inventiveness in particular, that so ingenious a piece of printing could have been produced so early.

146. FRANKLIN, BENJAMIN, and DAVID HALL.

[*FIVE POUND NOTE*] paper currency for the State of New Jersey, 1759, printed in the printing shop of Franklin and Hall, with the imprint of leaves by nature printing to make counterfeiting more difficult. Lent by the American Philosophical Society.

Franklin's practical application of nature printing to the printing of paper currency, is unknown in botanical literature. Franklin had been appointed Public Printer for Pennsylvania, later Delaware, New Jersey, and Maryland; among the duties involved was the printing of paper money. Through his participation in experiments in nature printing with Breitnall, and the know-how gained by printing a leaf in *Poor Richard's Almanac* for 1737, Franklin undoubtedly saw the advantage of applying the process (unfamiliar to most printers) for the protection of paper currency against counterfeiting. He ingeniously adapted the method for printing in a press. In some instances an impress of woven textile was added to give background texture. Little is known of Franklin's method; since it was a measure against counterfeiting, there would be every reason for not publishing the secret.

The many surviving specimens of the same leaf form imprinted on paper money, not to mention the vast quantity which one must assume not to have survived, lead to the conclusion that Franklin devised some kind of mold or stereotype of the leaf specimen and the accompanying cloth-textured background. This cast, in relief or woodcut form, was used in conjunction with type and ornament in an ordinary printing press.

March 29, 1963

Mr. Kneeland McMulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia 1, Penna.

Dear Mr. McMulty:

I was delighted to note in your exhibition of examples of nature printing with leaves and I fully understand the basis of your thinking that a stereotype could possibly have been used.

Is it possible that a leaf and a piece of cloth were pressed into clay, the clay baked, and then lead castings made from it to be used for cuts? What other soft materials could leaves and cloth be impressed in? I would be interested in your comments.

One of the very important items is to identify all of the leaves and leaf designs which Franklin used and it looks as though the work by Breintnall would be helpful in that respect. Virtually all of the leaf designs are known on paper money.

I also want you to know that the denomination is sometimes engraved on the leaf design and that could be accomplished by cutting into the casting.

In Item No. 146 in your list I do not find that Franklin printed any of the 1759 New Jersey paper money. James Parker was the printer at that time. There is also no 5¢ note of 1759 of the regular issue. I also call your attention to the use of the words "State of New Jersey" which should be "Colony of New Jersey".

I am wondering whether this is a proof or pattern note which is being loaned by the American Philosophical Society or whether it is a Delaware piece, etc.



-2-

March 29, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art

I am glad that Mr. Hooper is cooperating with you and know that he will take a definite interest in this research.

Please keep me advised as this is a fascinating subject to write up separately.

Cordially yours,

ERIC F. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EFN/atb

April 3, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

I have found a writeup by a student of Virginia currency which indicates that type metal cuts for Virginia Colonial notes were made from clay or plaster casts. No other explanation is given. However, a leaf, having been soaked in oil, could certainly be placed in plaster of Paris and leave a proper impression. The leaf could then be lifted out of the plaster of Paris easily in the same manner as death masks used to be made with plaster of Paris.

I hope these additional thoughts will be helpful.

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/atb



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA

April 5, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Newman:

Thank you for your last two letters.

The information about Virginia Colonial notes is a revelation. It seems to confirm our original theory. Is it possible to track down the source of this new piece of evidence?

Mr. Hooper was in and left us some pieces of currency to study. We are still convinced that the explanation of the leaf pattern lies in some crude cast method, and will let you know what our own investigations turn up. Meanwhile, we would like to know the source of the information on Virginia currency, if you can let us have it.

Sincerely yours,

Kneeland McNulty  
Associate Curator of Prints

April 9, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

I had already written my friend, in Virginia, for support of his comment that clay or plaster was used to make casts of items on Virginia currency. He inferred that a coat-of-arms, in metal, was impressed in clay or plaster and then a lead casting was made from the plaster.

In the middle of the night I woke up with a new theory which appears logical. The cloth and the leaves are soaked in some material which hardens on drying. Perhaps they are soaked in a very watery solution of plaster, then the cloth is laid on a bed of soft plaster and the leaves on top of the cloth. This is then permitted to harden. When it is hardened a negative plaster cast is made which constitutes the mold for the lead.

The denominations which I previously mentioned are cut into the lead as is shown by the enclosed photocopy where upon castings from the same mold the same denomination is cut in differently in the two types of the same piece.

The photocopies enclosed are a part of a full sheet of notes as printed and shows very definitely that the cuts were cast individually as in the ten shillings and 20 shillings the columns are interchanged in position. The back of the two examples of the 10 shilling shows nail holes, one of which apparently caused a break in the cut. Apparently nails were used on a depressed edge for the cut so that they ordinarily did not show but when the edge broke the nails had to be driven through the cut itself. Please note the small size of certain of the leaves.

I believe that Cooper Union Museum, in New York, specializes in printing and typography and I am wondering whether an inquiry from them might be helpful to you.

-2-

April 9, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art

I am still curious as to the so-called 1759 New Jersey issue which you described. Actually what is it?

I hope this information is helpful to you and I believe that we are closing in on the matter.

Sincerely yours,

ERIC P. HERRMAN NUMISMATIC  
EDUCATION SOCIETY

E/PN/atb

April 10, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O. Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

I discussed the stereotype matters with the Curator of the City Art Museum of St. Louis and he felt that the original leaves and cloth could have been soaked in hot wax for stiffening purposes. He also said that the negative impression, which would have to be the mold for the lead, might have been made of a mixture of clay, lime, and finely ground ashes so that it could withstand the heat of hot lead.

I would like to ask an additional question. Are the inked reproductions of the leaves on the pages of the book belonging to the Library Company of Philadelphia identified as to their specie?

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EFN/atb



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

April 15, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Newman:

Many thanks for the photocopy of the currency sheet. Oddly enough, the 10 shillings piece with the nail hole and chipped upper right corner is one of the several we selected for further study from Mr. Hooper's collection.

I have several specific questions from you to answer which I will try to reply to first. The 5 Pound Note, printed by Franklin and Hall of 1759 and mentioned in our Flower Catalogue is, as you surmised, from the Province of Pennsylvania, and not New Jersey as we originally called it. Secondly, only a very few of the leaves in Breintnall's collection of printed specimens are identified. Curiously, there are some samples of square bits of cloth, also printed in this book, which resemble in shape those used in the background of the currency. I intend to get some of these photographed.

I believe we are beyond the point of speculating how these casts were made. The answer will have to come from proper documentation. The search lies in Franklin's own writings, which are now being edited at Yale, or in some other contemporary accounts such as your Virginia friend's discovery. There are many ways to make castings and perhaps your theories are right, but proper documentation is what we need.

We have established that the cuts were almost undoubtedly made from actual leaves, that Franklin and his friends experimented not only with leaf prints, but also with crude stereotyping. I have asked a gentleman named Dr. C. William Miller of Temple University - an expert on Franklin imprints - to give us the benefit of his knowledge; and the former assistant editor of the Franklin Papers, Dr. Whitfield J. Bell, a neighbor of mine, is intensely interested and, as a matter of fact, got us involved in the whole problem.

Mr. Eric P. Newman  
April 15, 1963

Page two.

George L. McKay in his Early American Currency ... 1944, p. 60 etc. says that "In 1728 James Franklin [Benjamin's brother] petitioned the Rhode Island Assembly, urging that the colony's currency be printed in relief from ornaments, etc. cast from engraved models. He claimed that it would be much more difficult to counterfeit the bills he recommended than those printed from copperplate... Franklin's petition was denied." So here is further proof that the idea of relief cast cuts was discussed as early as 1728, and in Franklin's own circle.

Your interest is very encouraging, and I'll let you know what is turned up next.

Cordially yours,

A handwritten signature in cursive script, reading "Kneeland McNulty".

Kneeland McNulty  
Associate Curator of Prints



April 17, 1963

Mr. Richard Hooper  
236 Rice's Mill Road  
Wyncote, Penna.

Dear Dick:

Thank you for your very kind comments with respect to the work I am doing in numismatics. It is certainly true that both of us get real pleasure and satisfaction out of that type of accomplishment.

As to your New Hampshire paper money write up, I presume you will finish it as you have many of the others, and would suggest ANA publication unless it is long enough to make a full monograph for ANS. As long as you have started a pattern with ANA on the publication of similar articles it would not be advisable to change to the ANS NOTES.

I am very interested in the work Mr. McNulty is doing and although they have not given me much in the way of facts I feel they are on the right track. I certainly think it is necessary, under the circumstances, to identify all of the leaves on the currency. Is there anybody in Botany, or Forestry, who would be in a position to do that as they are obviously all leaves from trees which grew in the Philadelphia area.

I find that the Bryn Mawr graduation is at 10 A. M. on Monday, June 3, and probably we will leave that afternoon after the program. I will be at the Deanery, in Bryn Mawr. I certainly appreciate your kind invitation to lunch but don't see how that is possible under the circumstances. Since you will have been away over the weekend or chance of meeting is problematical.

-2-

Mr. Richard Hooper

April 17, 1963

As to the notes which you were nice enough to send, I do not have the Wamsutta, which is an alteration of the Washtenau Bank in Michigan. If you would let me give you another equivalent item for it I would be most grateful. I am enclosing one which I hope meets with your approval.

My friend has the note you sent and I think is in need of both the A and B plates of the 6 shillings.

You did not answer me on the question of whether you had ever prepared a list as to the actual denominations issued of Colonial notes and I am wondering whether you have undertaken any part of this work.

My very kindest personal regards.

Sincerely,

ERIC W. NEWMAN

ERN/atb

April 19, 1963

Mr. Wneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

Thank you for your letter of April 15. I am contacting the Botanical Garden, here, and will endeavor to have all of the leaves identified on the issues of the Continental Congress and the Province of Pennsylvania, etc.

One particular item bothers me. The imprint of the leaves on the paper money, according to the stereotype procedure should be mirror images. If any leaf shown were asymmetrical we could tell whether it was a mirror image or not and in that way determine something more of the process. If asymmetrical leaves are righthanded and left handed on the same tree then we are lost. Some trees have three different types of leaves. Frankly, this problem is really intriguing.

Your quotation of James Franklin's petition of 1728 relates to type ornaments rather than cast cuts, in my opinion. The idea was to make a border of repetitive cast ornaments which were identical. This would make it extremely difficult for a counterfeiter to engrave the ornaments separately as he would have to do on a plate. These ornaments were not therefore made any differently than cast type.

I am going to concentrate on studying the currency itself.

One of the finest botanical libraries in the world is here in St. Louis and I am going to ask their librarian to look for eighteenth century botanical items to see whether the stereotype process could have been used on some book.

I hope I can be of further assistance and look forward to hearing from you.

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/atb

April 22, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O. Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

Two items which might be helpful.....

Item 1. I find that on the \$5 Continental Congress issue of January 14, 1779, which contains the leaf of a mugwort, the cloth shows through one portion of the leaf. This must have been a very thin leaf and it shows that the cloth and leaf were part of one casting. No one engraving such a design would possibly superimpose the one on the other.

Item 2. Maryland used leaves on the issues of 1767, 1770 and 1774. The initials "I.G." are on most of the leaf designs. The same denomination of each issue carries the same leaf design. The printer of the 1767 issue was Jonas Green. The printer of the 1770 issue was Anne Catherine Green and W. Green and the printer of the 1774 issue was Anne Catherine Green and F. Green. It is entirely possible that the initials "I.G." stand for Jonas Green.

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/atb

JOHN WORK GARRETT LIBRARY OF THE JOHNS HOPKINS UNIVERSITY

ELIZABETH BAER, *Librarian*  
SARAH E. FREEMAN, *Curator, Numismatics*



EVERGREEN HOUSE

4545 NORTH CHARLES STREET  
BALTIMORE 10, MARYLAND

May 10, 1963

Dear Eric:

Thanks for all the information in your nice letter. I regret to say though that it can't all be right. May be Kenney is to blame. That is chiefly why I have never happened to think enough of his work to buy it, though I have decided I better had.

I'll take your word on the Dickeson copy of the Continental Dollar. However the medal with the Perseverando type on the issue of continental currency could not possibly have been concocted by Thomas L. Elder in the early twentieth century. I found it and three others with different types grouped under the heading "Continental Seals" in Woodward's 19th, 1878. And since then have found a mule of two obverse types - one of them the Perseverando - amongst miscellaneous American medals in bronze, in Woodward's 5th, 1864. This is almost, if not the, earliest auction catalog I have here, so I can't track back any further. Anyway, a little more research is called for, don't you think?

As to your problem, I'm taking it under consideration. I don't know anything about printing from real leaves, but may be able to find out something from a modern point of view. What makes you think they actually used real leaves, and not a good artist's engraving of a leaf? I have several colleagues who are experts on printing, etc., and it apparently would not have occurred to them that the actual leaf served as anything but a model. Our library here is strong on botanical book illustration, and reference books about the subject and there is no mention anywhere of any use of impressions. Also nothing in connection with colonial printing. The closest I've come is in the making of artificial flowers, etc., in which one makes a plaster cast of the leaf, and then a reproduction in wax, with wires for the veins, etc. And, of course, if one can make a plaster cast of a leaf, one could use the mould for most anything.

We are intrigued. But if you think they must be real just because they look real then I don't think there is much of a problem. There is no doubt that they are botanically identifiable, and in that sense real. I haven't time to dash out and check some live ones right now, but it seems to me that the leaves I've looked at on some available currency are somewhat reduced in size. In fact, methinks you're nuts!

Yours,

May 13, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

I visited the Hunt Botanical Library of Carnegie Tech, in Pittsburgh and left them a group of early American currency to identify the leaves. We also looked up in their library the matter of nature printing and they are sending me copies of certain pages from books in their possession. In the course of checking out the background of nature printing we found the following sources:

Ernest Fischer "Zweihundert Jahre Naturselbstdruck",  
Guttenberg - Jahrbuch 1933, pp. 186-213.

Wilfrid Blunt "The Art of Botanical Illustration",  
London 1950 and Mr. Blunt's address is C/o Watts  
Gallery, Compton near Guilford, Surrey, England. (You  
may wish to write him).

Gordon Dunthmore "Flower and Fruit Prints of the 18th  
and 19th Centuries", Washington, D. C. p. 45, 2-314.

Henry Bradbury "Nature Printing and its origin and objects",  
London, 1856.

I examined Thomas Moore's book entitled "The Ferns of  
Great Britain & Ireland, Nature Printed by Henry Bradbury"  
(London, 1855) which describes nature printing with metal.  
The specimen is squeezed between steel and a soft metal  
and then the soft metal is used as an engraving plate  
with green ink used. This process is "new" according to  
the preface, but it is similar to the Franklin method.

Benjamin Daydon Jackson "The History of Botanical Illus-  
trations" in Transactions of Herefordshire Natural History  
Society for 1903-5. (1906). Hunt Library is ordering a  
microfilm.

May 13, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art

The earliest nature printing was said to have been done by Hessel in 1707, in America. I found no information as to the source of that statement and wonder if you know anything about this man.

The world authority on botanical illustrations is Dr. Claus Missen, Maler-Beckerstrasse 11, Mainz, Gosenheim, Germany, who speaks and writes English. You may wish to write him.

I mentioned the problem to Mr. Marcus A. McCorison, at the American Antiquarian Society and he distinctly recalls reading some article with respect to printing with leaves. He called my attention to page 344 of The Papers of Benjamin Franklin and wrote Mr. Labaree as to the source of this material. In the meantime, however, I have discovered what I consider to be very important information, namely, that the leaf cuts used on the paper for the first issues of the Continental currency were some of Benjamin Franklin's old cuts. I am enclosing some Xerox copies of leaf designs on American currency.

Let me know how you are coming along. Please thank whoever started this project as it has been endlessly enjoyable.

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

By Eric P. Newman, President

EPN/atb

May 14, 1963

Dr. Sarah Freeman  
Johns Hopkins University  
Baltimore 18, Maryland

Dear Sally:

You have taught me never to rely on books. After studying your letter I went to work in my library and have the following revised conclusions.

The pewter Continental dollar is a Dickeson struck copy. I have found it struck in copper as Item 3108 in the Woodward Sale of March 20, 1865. Whether struck in pewter at that time I have no evidence but would assume so. Checking my earlier sale catalogues produced nothing.

In the same sale, Lot 3107 has the Continental dollar obverse with the beaver reverse. Lot 3109 is a muling of the altar and "Confederation" on one side with an inscription on the other indicating that \$3,000,000 in Continental currency was issued in November, 1775. Lot 3110 has an eagle and pelican fighting on one side and the \$3,000,000 inscription on the other. The foregoing is conclusive of the fact that Dickeson made six dies relating to the Continental currency and muled them. I have located a few of these pieces in my collection.

In 1917 Thomas L. Elder, who had acquired these dies, prepared propaganda relating to the Kaiser, to the Lusitania, and to other so-called patriotic matters and struck pieces with various Dickeson dies on one side and the patriotic propaganda on the other. I have located a couple of these in my collection. Whether Elder made any more of the type without his propaganda and using only the Dickeson original dies I do not know, but I believe not as he too was a "nut" and the older pieces had no value then.



May 14, 1963

Dr. Sarah Freeman

I also note in the 1864 Woodward catalogue which you call to my attention the fact that Dickeson had already made a copy of the Sommer Islands piece and it is mentioned in that sale.

I, naturally, confirm your finding of lot 1992 in the October 18, 1864 Woodward sale which is a combination of the beaver and the altar dies. Now, perhaps, we are in accord.

The matter of the use of actual leaves for making cuts to print early currency instead of having them drawn is, in my opinion, almost a proven reality. Nature printing was apparently discovered in America with a leaf being smoked in lamp black and then pressed between two pieces of paper. Subsequently, in Germany and by Franklin himself, a leaf was soaked in printing ink and pressed between paper in books. The leaf could be used many times. I have seen the German books and there is one by Franklin in the Philadelphia Library Company.

The next experiments were with cloth being used in similar fashion.

Then comes the unknown hiatus of the paper money which is obviously printed with metal cuts and these cuts were made from casts from actual leaf molds. How this was done was the mystery. By 1855, in England, plants were pressed between a steel plate and a soft metal plate leaving an impression in the soft plate which was then used to print a book. What happened during the American Colonial printing did not happen by accident as the colonies of New Jersey, Pennsylvania, Delaware, and Maryland all used leaf designs to prevent counterfeiting as well as the Continental currency. You can tell your friends with interest in printing or botanical illustration that their help would be most appreciated as this subject is endlessly intriguing. Incidentally, small size leaves were selected to fit the paper money and some of these did not even fit. This resulted in immature specimens of leaves which are much more difficult to identify.

-3-

Dr. Sarah Freeman

May 14, 1963

Because leaves from nut trees were used on the paper money I understand why you think I absorbed too much of the fruit but please do not "leaf" me to struggle alone on this research.

Sincerely,

ERIC S. REEDMAN

ERN/atb

May 17, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

My daughter graduates from Bryn Mawr on Monday, June 3, and I probably will be in the Philadelphia area part of Saturday and Sunday before graduation. If you are not at the Museum at that time perhaps it might be well to get acquainted over the telephone.

I have noticed a certain matter which I would like to have you consider. The leaf print on the 10 shillings Pennsylvania currency used from 1764 through 1776 was modified in 1769 only for use on a Pennsylvania 60 shilling note. The modification consisted of changing the denominational inscription on the cut from X-S to LX-S and adding L3 in the upper left corner. Thereafter there was a further modification of the cut by eliminating the denomination at the upper left corner and by removing the L from the denominator at the lower right corner. The places where these changes were made shows definite reworking of the old cuts as you can see on the enclosed pictures; (you can still see traces of the L3). There were two cuts of this design, one with the broken corner and one without a broken corner, both of which remain throughout every issue of 10 shilling notes from 1764 through 1776. How was the correction made to a type metal casting? A piece of some other cut might have been inserted but this seems to be a very clumsy way to do it. I doubt if two new negatives were made and corrected and then new cuts prepared from them. Have you an answer?

Another curiosity is that the same leaf illustration was used on a group of other notes. First it was used on the Pennsylvania 5 shilling notes with the denomination V inscribed in the cut. Then it was used for the 5 dollar notes of 1775 of the Continental Congress with no change. Then it was used on Pennsylvania 5 shilling notes of 1775 and an S was added after the V. Then, in 1776, it was used on the 30 shilling Pennsylvania notes, the VS being eliminated and XXXS being added in the upper corner.

-2-

Mr. Kneeland McNulty  
Philadelphia Museum of Art

Because these changes were accomplished on the same cuts, it is clear that they did not have negatives to cast new cuts from.

As to casting cuts, I am advised that plaster of Paris will stand a type metal casting or so being poured over it without breaking.

Let me hear from you.

Sincerely,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/atb



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 19106

May 17, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Newman:

I have sent you a copy of our "World of Flowers" exhibition catalogue which contains the full text of our Nature Printing findings. You will note in the bibliography to the Flower Prints section, on page 206 some of the books you mention in your letter of May 13. The Ernest Fischer reference, first on your list, is one we have not researched - I hope it is useful.

Meanwhile Edwin Wolf of The Library Company tells us he has discovered some more nature printing in a book by Pastorius of about 1700. We have yet to examine this new find.

The person who got us into all this trouble is Dr. Whitfield J. Bell, Jr. (2138 Cherry St., Phila. 3 ) who first told us about Franklin's work. Bell is a next door neighbor and close friend of mine. He was associated with Leonard W. Labaree on the first four volumes of the Franklin Papers, now being edited at Yale, and is considered the foremost authority on Franklin. He would, I am sure, be entertained to hear from you if you cared to write him.

I enclose a clipping from the N.Y. Times by their art critic John Canaday who became interested in this aspect of the flower exhibition.

Many thanks for all the zerox copies of currency sent in your last letter. It is most interesting to see so many varied examples and I intend to pore over them as soon as I get the chance.

Cordially yours,

Kneeland McNulty  
Associate Curator of Prints

*P. S. Nessel is still something of a question-mark.*

10. FRANKLIN, BENJAMIN, and DAVID HALL (American/1711-1772)

*FIVE POUND NOTE* paper currency for the Province of Pennsylvania, 1759, printed in the printing shop of Franklin and Hall, with the imprint of leaves by nature printing to make counterfeiting more difficult. Lent by the American Philosophical Society. In case.

Franklin's practical application of nature printing to the printing of paper currency, is unknown in botanical literature. Franklin had been appointed Public Printer for Pennsylvania, later Delaware, New Jersey, and Maryland; among the duties involved was the printing of paper money. Through his participation in experiments in nature printing with Koenig, notable time was gained by printing a leaf in *Reverend's Almanac* (1757). Franklin continued to use this technique, applying the process further to most currencies for the production of paper currency under his oversight. He subsequently adopted the method for printing in a press. In some instances an impress of woven textile was added to give background texture. Little is known of Franklin's method; since it was a measure against counterfeiting, there would be every reason for not publishing the secret.

The many surviving specimens of the same leaf form imprinted on paper money, not to mention the vast quantity which one must assume not to have survived, lead to the conclusion that Franklin devised some kind of mold or dandytype of the leaf specimen and the accompanying cloth-textured background. This cast, in the form of a relief, was used in conjunction with type and ornament in an ordinary printing press.



FRANKLIN, *Five Pound Note*, 1759, 4116, lent by the American Philosophical Society.

147. AUER, VON (Austrian, 1815-1887)  
Nature printing.

*FLOWERS* Engraving, printed in color, showing results achieved by Auer's improvements in technique. From his book on *Naturselbstdruck*, Vienna, 1854. 61-86-106. In case.

Spring 1963

H. Ward of Lancaster  
Phila. Museum of Nat.

Handwritten text in a cursive script, likely a botanical description or a list of specimens.

Handwritten text in a cursive script, likely a botanical description or a list of specimens.



1688/1689 by Vercy, Leaf of Salvia, from the Codex Atlanticus (1490-1515)  
in the Ambrosiana Library, Milan. Not in exhibition.  
Courtesy of The Free Library.

# NATURE PRINTING

A fascinating and instructive chapter in the technical history of flower prints is that indexed by the name of Nature Printing. Such authorities as Blunt, Dunthorne, and Nissen have written on the subject, and there is no reason for further consideration of the matter beyond a brief recapitulation of their researches. The present exhibition can, however, contribute an additional mite of information on a little known application of the process and on Benjamin Franklin's participation in it. It involves what one might call a "Philadelphia First."

In nature printing, actual leaves and plants are used to produce the outline and image. It is of course better adapted for leaves and ferns than for actual flowers. The process was a development of the *Holmium* or *Hortus Siccus* or collection of dried leaves or plants which was part of every great botanical library. Such dried specimens were fragile and consequently subject to deterioration. Rubbings from leaves were made as a more durable solution, in the simplest form of nature printing, a dried leaf was held in the flame of a candle until it was uniformly coated with lampblack; and then it was placed between two sheets of paper. With rubbing and pressure, the outline of the leaf's structure

was transferred to the paper. The process may be repeated until the leaf seems entirely white with dirty soot. The first printed reference to the method was in *Albanus de Paduensis Liber de secretis naturae* (Milan, 1557, according to Nissen).

Benjamin di Vinci described another method of nature printing, as described in his *Codex Atlanticus* (1490-1515) on page 25: "Paper should be coated with lampblack mixed with sweet oil (then laid & laid thinned with oil should be applied on the leaf of the plant as one does in rubbing type (that is to say only on the ribs & edges, and other parts that project above the surface of the leaf); and then print as in common use in a printing press, whereupon the leaf appears on the paper, dark in the depressions and light in the projections." An imprint of a leaf of *Salvia* was made on the manuscript page. It is, however, produced not by the method of describing but in the common way, that is by rubbing that on the white paper, using lamp black mixed with oil (a sort of printing ink, another manuscript so follows). It is in my possession of the earliest known example of nature printing by the charcoal method, as described, is complicated and would appear need to differ from botanical, furthermore, being buried in an unpublished manuscript, it did not stimulate widespread application.

Since a lampblack image was apt to rub and become blurred, the simple method was improved by coating the leaf with printer's ink (a mixture of lampblack and oil or sacchar) and subjecting the whole to the heavier and more uniform pressure of a printing or copying press. By 1580 the technique had been improved to such an extent that Silvio Busone could produce the landscape imprints now preserved in the Vatican Museum Library. In the XVII century nature printing became widespread, European (see cat. #1) and American (see cat. #2). In the XVIII century, even after the Philadelphia Process, as it was then known, America made in 1790 the commercial transition to 1812, it had reached its maximum, the first large scale work, as it were, commercial production of nature printing. The simple process described by Vercy (1688/1689) in *Albanus de Paduensis Liber de secretis naturae* (1557). All these publications suffered from the disadvantage that the operations were not confined throughout the station either to the press and then on the device. A method of overcoming this difficulty was patented around 1797 by John Adams, an American, the dynamic director of the American State Printing House at Boston, and father of the inventor of the lithograph, see cat. #3. He placed a leaf or even a composite plant between a sheet of hard steel and a sheet of soft lead, and subjected them to intense pressure, with the result that the leaf was impressed in the soft lead. From this leaden negative a relief mold could be made by electroplating (which had been invented by Galvani just a few years before, in 1837). From the relief mold, a second or intaglio mold could be produced by the same process. The final mold was an exact replica of the original lead mold except that it was of more durable material and would stand up under printing better than soft lead could. Such a plate could be printed as an etching and even with color inks (see catalogue #147). Further refinements were perfected but the growing ascendancy of photography and photo-mechanical methods of reproductive printing in due course obviated the need for nature printing, as it did also, one might say, the need for the botanical artist.

To return to Benjamin Franklin and nature printing. In *The Papers of Benjamin Franklin*, edited by Leonard W. Labaree and Whitfield J. Bell, Jr., volume I, page 391, there is a quotation from an advertisement in Franklin's newspaper, *The Pennsylvania Gazette*, during 1733: "Lost about four Weeks since, Supposed in or near the Market-Place, a Sheet and half of Prints of Leaves, being Part of a compleat Set. Whoever brings them to the Printer hereof, shall be well rewarded." To which the editors have appended the following footnote: "B. F. (Benjamin Franklin), Joseph Breintnall, John Bartram, and their friends at that time experimented with making impressions of leaves of trees, shrubs, ferns, and grasses. When the leaves were fresh and skillfully inked and pressed, exceedingly accurate and desirable prints were produced. European botanists asked for examples. Breintnall made impressions for the French traveller M. Aubrey de la Mottraye, whom Dr. Samuel Chevre brought to Phil-

in 1733, and in October supplied Peter Collinson [in London] with some 130 prints. These were also printed on New Jersey paper, whence it is not surprising that the *Autobiography* for 1737 carried a leaf of the rattlesnake herb, with Breintnall's description of it. Examples of early paper currency printed in Franklin's printing shop at Franklin and Dock, and Breintnall's nature printing, as well as a copy of *Poor Richard's Almanac*, are shown in the exhibition.

It would seem, therefore, that Franklin solved the problem of making nature printing in America while long before Moïse Auer perfected his process. It must be remembered, however, that Franklin was merely making a practical application of nature printing, and not actually furthering, or tank it research.

THE TOP of the Plant is very curious, with the Figure of

THE Top of the Plant thick & bluish in Aug. is a Species of Fern the other is of the Leafy, and is called the Broom of the Broom, the Plant; an is in some Place height when at the same, is of four, and larger a fine blue Leaf of the English Elm Wood-Lane Shade of Trees large, or with 11 or three Stripes. the Broom of dr times in them, But it is small in Sides, if the So too moist, nor The Root equi

Printed and by Philadelphia, 1737.  
113.  
Lent by the American Philosophical Society.

111. BREINTNALL, JOSEPH (American, died 1716)

*PRINTS OF LEAVES*, a collection of specimens of nature printing, bound in two folio volumes, one containing 130 pages and the other 103 pages of imprints, dating from 1734 to 1742. Lent by The Library Company. In case.

Breintnall was an English member of the Junta. Franklin described him in his *Autobiography* as "a good-natured, fat, gaily, middle-aged man . . . very ingenious (as are little Rattle-nake Series and of "amiable conversation." The first book, I once described as "a large Collection of Prints of Leaves of Plants growing in or Philadelphia" were given to The Library Company by his widow in 1716. The specimens of nature printing were made on sheets of paper, varying from about 6 x 7 to 17 x 30 inches, and printed with printer's ink. The sheets were folded in half and the inked leaf inserted, so that there would be an impress of the front and back of the leaf. Some were done with a roller (May 19, 1733) others "were done in my new Press which Joseph Watkins made and now brought Home, 2nd of May 1734." There are other interesting notes jotted down by Breintnall, for example: "Done July 18th 1742, when I improved 6 or 8 Sheets more for my Friends [Friends] Kent, Bard, Pratt, Bayne, Shesemaker, etc." On the page displayed is written: Engraven by the Creative and best Engraver in the Universe.



BREINTNALL, *Prints of Leaves*, 1734-1742. 112. Lent by The Library Company.

145. FRANKLIN, BENJAMIN (American, 1706-1790)

*POOR RICHARD, AN ALMANAC FOR THE YEAR OF CHRIST, 1737*. Printed by Benjamin Franklin, 8 vo, Philadelphia, 1737. Lent by the American Philosophical Society. In case.

This pamphlet contains an imprint of a leaf of Rattle-nake Herb by nature

printing, together with a description by Breintnall of its curative properties as known to the Indians. It is one of the earliest examples of the application of nature printing in quantity with letterpress, antedated only by Kriehoff's publication of 1733. It argues well for the technological competence of the American Colonies and for Franklin's involvement in particular, that so important a piece of printing could have been produced so early.





PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 2

May 21, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Newman:

I will not be officially in the Museum on June 1 or 2, but I live very close by and would enjoy meeting you and showing you our exhibit. You can reach me by phone at home, at LO 3-7968. My address is 2130 Cherry St., Phila. 3; it is about five minutes by car, or a thirteen minute walk to the Museum from there.

I shall try to think up some reasonable answer to your query about the modified cuts. Your Zerox pictures are very helpful.

Hope to see you soon,

Sincerely yours,

*Kneeland McNulty*

Kneeland McNulty  
Associate Curator of Prints

May 21, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O. Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

Thank you, very much, for the fascinating catalogue entitled "The World of Flowers". The write up of nature printing is indicative of the extensive research which you undertook. I congratulate you on it. I will plan to see the exhibit over the Memorial Day weekend.

Is it possible for you to send me a photographic print of the leaf from Breintnall's book as, no doubt, you had one made for the illustration in the catalogue.

I would like to know if you have a list of all of the varieties of botanical items in the Breintnall book as these would be most helpful in identifying those on the currency. In fact, matching the currency against Breintnall's book is probably very simple as all specimens in the area are, no doubt, included.

If you have not already done so, would you send a copy of your bulletin to Hunt Botanical Library, Carnegie Institute of Technology, Pittsburgh, Pennsylvania, and Missouri Botanical Garden, 2315 Tower Grove Avenue, St. Louis 10, Missouri.

I note you indicate that Hessel is still something of a question mark but, apparently, a painter by that name came to America in the mid-eighteenth century and perhaps only the date is wrong as the Linnaeus book mentioning Hessel was published in 1750. See Dictionary of American Biography.

I hope to hear from you concerning my trip to Philadelphia over the Memorial Day weekend.

Sincerely yours,

EPN/atb

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

May 27, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Newman:

We had the photograph of the Breintnall pages taken by the Library Company, but we did get the negative, so I am having a print made up for you. I hope it will be ready by this week end. There is no list of all the botanical items in the book, unfortunately. I was hoping to get a chance to go over it more thoroughly when it comes off exhibition and before it is returned.

Meanwhile, a friend of mine named Willman Spawn, who works for the American Philosophical Society, came across the following note in The Pennsylvania Gazette which may be of use to you:

The Pennsylvania Gazette, February 17, 1763 Numb. 1782  
bottom of (p. 4): Philadelphia: Printed by B. Franklin, POSTMASTER,  
and D. Hall, at the NEW PRINTING-OFFICE, near the Market.

- (p. 2) The PUBLICK are desired to beware of Counterfeit THREE-POUND New-Jersey Bills, which, of late, have appeared among us --- They are badly done on a Copper-plate, dated April 8, 1762, and are printed on three Folds of Paper, pasted together, the Letters in the whole Bill being very irregular, and standing much out of Line; whereas the true Bills are neatly and regularly done in the common Printing Manner, and printed on two Folds of Paper. In the first Line of the Face of the Counterfeit, the O in POUNDS is shorter and thicker than the other Letters in that Word; and in the third Line the last E in JERSEY is not like a Printing E, but is made in the Manner commonly used in Writing. In short, the whole is so ill executed, that we think, after this Notice, no Body can be imposed on by them.

The Public are also desired to beware of Counterfeit THIRTY SHILLING Bills of the same Money, as lately advertised in this Paper.

June 6, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.#. 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

I am very grateful to you for spending the time with me at the museum and my wife and I both enjoyed meeting you.

I am enclosing a photocopy of the list of botanical items in the larger of the two books examined and with this list you may be able to add a few more items or comments from the other book. I would be grateful if you can.

Incidentally, I have been thinking about the problem of getting the leaf and the cloth on a flat level and it strikes me that first the leaf and then the moist cloth must have been laid upside down on a board and then plaster built up on the back to hold the leaf and cloth together at the proper level; then the negative could be made easily. This explains why the cloth had to be moistened in order to form itself around the leaf and it also explains the white areas between the outside edge of the leaves and the cloth.

I look forward to receiving the results of your finding out ~~the~~ who communicated with Linnaeus.

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/atb

Joseph Breintnall

2 Books of Nature Printing dated 1731-1742  
Library Company of Phila

Size of one book 17 x 13 with leaves  
of various sizes

Many leaves are unidentified. The list  
contains all which are identified with  
the spelling as used (subject to error  
due to illegibility)

There are feathers and cherubs  
printed in the same manner

\* Those so identified were done about  
1855 in pencil by C. Price



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

June 10, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Newman:

Whit Bell tells me that the Library Company has Breintnall's own list from which leaf-prints could be ordered by interested persons. I wonder if that list would not be more satisfactory to you than our perusal of the actual scrapbooks. Would you care to write Edwin Wolf about this?

On Tuesday, Dr. C. William Miller of Temple University stopped in to see what our problem was all about. He is a very pleasant gentleman and most knowledgeable about Franklin imprints, but he has never been involved in the numismatic end of Franklin's work. I lent him your two articles and promised to write up my findings so that he could catch up to us. I'll send you a carbon also. Miller was very interested, but he has other Franklin matters on his mind.

It was very pleasant to meet you and your wife, and a real pleasure to show you the Breintnall book and discuss the project. I hope all this activity will end in something useful. I haven't yet checked on the revised edition of Peter Kalm to see if he told Linnaeus about Hesselius.

Cordially,

Kneeland McNulty  
Associate Curator of Prints



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

June 27, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Mo.

Dear Mr. Newman:

Enclosed is a copy of my write-up of the Franklin investigations so far. I have incorporated a number of references with which you are perhaps unfamiliar.

Mr. Zigrosser is interested in my publishing our investigations, but I agree with Bell that the whole story with your researches into the botany and numismatic end of it, should all be included in one complete article. How are your efforts coming along?

Sincerely yours,

Kneeland McNulty  
Associate Curator of Prints

July 2, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia 1, Penna.

Dear Mr. McNulty:

I read with great pleasure your draft of the nature printing write up and am very pleased that Mr. Zigrosser feels that it should be published. I agree with Mr. Bell that the whole story should be in one complete article. The problem, therefore, is whether there should be co-authorship or separate authorship of two sections. Since it is on the subject of money I think it would be much more potent if money is included in a substantial section of the article.

I am going away on my vacation for a month but, in the meantime, things will be happening. I am being sent another group of Colonial paper money to study and the botanical investigation should be finished by my return. I have not heard from Edwin Wolf, 2nd yet, but presume that will be forthcoming.

I do have a number of suggestions, however, in connection with your article and will give some of them in the accompanying memorandum.

I am enclosing herewith a photocopy of the broadside issued by the Continental Congress in January of 1779 and call your attention to the last sentence showing that the bills were done by letter press and also showing throughout the broadside that copper plates were mentioned as being counterfeits. This broadside was included in my article by illustration only and was unreadable there.

I have also located some background material in Harper's Magazine, etc. showing that a lot of loose language was used. The article does, however, mention leaves as a device difficult to imitate.



-2-

July 2, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art

I thought this additional material might be helpful to you.

I was certainly delighted with what you have found. The technical numismatic and horticultural matters I will get to and, as I indicated before, it will make a most unusual publication in whatever form all of us feel will be the most effective.

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/atb

Page 2, line 1:

The age of the process of acid etching into copper could be mentioned. Is it later than Franklin or not?

Page 2, line 6:

When was Gillray's picture published?

Page 2, line 20:

Mr. Dwiggins tried to confuse everybody. The \$3 Rhode Island piece he refers to has white lines on black. However, it does not have leaves while several other denominations of this 1750 issue do have leaves and all of the leaves are hand engraved and are printed white on black. They are quite crude compared to nature prints. I'll send a photocopy if you wish.

Page 2, last line:

It seems unwise to doubt the existence of this counterfeit copper plate as I have, in my collection, a counterfeit struck from it.

Page 3, second paragraph:

It is fundamental to mention that engraved copper plates were used to make most early Colonial currency and a few of the later issues. Paul Revere's currency plates and other earlier Massachusetts currency issues were engraved on copper and are still in existence at the Boston State House and Massachusetts Historical Society. A 1776 \$20 North Carolina copper plate is in the American Antiquarian Society collection. New Hampshire plates exist, etc.

Page 3, last paragraph:

It is important to mention that the copper plate at H.S.P. was Continental Currency. It is dated 1776, not 1770.

Page 4, line 2:

I did not intend to indicate that all currency from copper plate was counterfeit, only that all copper plate strikings of Continental Currency were counterfeit.

Page 4, line 5:

You probably should know that Kenneth Scott's quotation was taken from my prior article. In fact, I practically wrote this chapter in his book and you will note he dedicated the book to me. The order of reference should be reversed.

Page 4, line 12:

The official proof sheets on blue paper distributed by the Continental Congress and by Pennsylvania, of which I have a group in my collection, give positive identification as to genuine notes. One can feel the depression in the lettering.

Page 6, line 9:

This is a Pennsylvania piece and should be identified as such.

Page 6, line 14:

The use of the words "soft lead" is misleading. Actually this is putty or worked lead.

Page 6, line 16:

Instead of electrometallurgy, I would use the word "electrotyping" and indicate that it had just been invented. The electrotype was hard enough to press into a soft lead sheet which became the printing plate.

Page 7, line 2:

Again, Pennsylvania currency should be indicated.

Page 7, line 18:

I believe Golden wrote Franklin for details about the process and Franklin wrote that he would give the details but apparently never did. Have you found this?

Page 7, line 20:

Is there a chance of quoting a translation of part of the Funck book rather than using what Camus says Funck says?



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

23 August 1963

Mr. Eric P. Newman  
6450 Cecil Ave.  
St. Louis, Mo.

Dear Mr. Newman:

I have delayed replying to your last letter of July 2 due to your vacation and commitments here. Since I will be responsible for this department next year, I have had a lot of preparatory work for exhibitions, and am also trying to get ready to go to Europe for two months beginning Sept. 5.

I appreciated your comments about the write-up. I felt that there was too much other stuff going on to leave my leaf printing notes before writing it down and getting it all together.

To answer a few of your queries: the use of acid for etching metal goes back to the 15th century, but we do not know just when soft-ground etching, using an impress, first began. The Gillray print would come after Franklin's time, but it seems to be an early and outstanding use of this procedure.

My big disappointment was not to find any trace of Funck's book in Philadelphia, let alone Franklin's library (which Wolf is reconstructing). In fact, the only place I found it mentioned was in the Victoria and Albert Museum (neither the British Museum or Library of Congress catalogues mentions a copy). If we could trace a copy of that book to Franklin's hands we would be in, as the saying goes.

I will be interested to learn what further developments have occurred in St. Louis this summer. But I won't be back in this country until after November 4th.

Hope you had a good vacation,

Cordially

*Kneeland McNulty*

Kneeland McNulty  
Assoc. Curator of Prints

August 23, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Mr. McNulty:

I have returned from my vacation and, though I am hard at work planning my daughter's wedding, I wanted to report ready to complete the write-up on the nature printing.

I have studied another collection of paper money and have gathered illustrations so that this part seems reasonably complete. The botanical investigation has been only partially completed and I am promised its prompt completion shortly. Edwin Wolf, 2nd, was kind enough to send me the list of nature prints which Breintnall offered for sale.

Are there any thoughts as to where this should be published if it is written jointly, or in two sections? Possibly Mr. Zigrosser has made more definite plans with respect to its publication.

I hope that you had a very pleasant summer and I sincerely needed my vacation as a diversion. I did not have a brain cell working.

I look forward to hearing from you shortly and am glad to return to nature.

Sincerely yours,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/atb



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

26 August 1963

Mr. Eric P. Newman  
6450 Cecil Ave.  
St. Louis 8, Mo.

Dear Mr. Newman:

Our letters must have crossed.

So far as I know, Mr. Zigrosser is not planning to publish anything further on the leaf-print subject. He has urged me to do so, but I felt that an article should cover the kind of research you are conducting to be complete, and Dr. Bell is of the same mind.

It does occur to me that you could do one article for whatever numismatic publication you have in mind, stressing the currency angle and using whatever information you want from my paper, and I could do one stressing nature printing and Franklin for some publication like the Proceedings of the American Philosophical Society, if they want it, supplementing it with your researches. Not having seen what you propose to write makes this very hypothetical.

In any case, I am not over concerned about my end of it except that I would like Dr. Bell to get credit for starting the whole investigation, and, of course, Mr. Zigrosser for his contribution in our Flower Catalogue.

Since I will be away until after Nov. 4th, you may wish to go ahead as you see fit, and if so, please feel free to do so. Perhaps it will take you until then to get your thoughts down on paper anyhow.

Sincerely yours,

*Kneeland McNulty*

Kneeland McNulty  
Assoc. Curator of Prints & Drawings

November 1, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Kneeland:

Welcome home to a mound of mail to which, unfortunately, I am adding.

I am enclosing herewith the article I have written on nature printed currency and would appreciate it if you would read it and make any suggestions or corrections you care to. C. William Miller, of Temple University, English Department, has an earlier draft of the article. The illustrations are omitted, as you know what they are.

I would appreciate your promptness in giving me your thoughts as the publisher is awaiting the green light.

I must thank you over and over again for making it possible for me to do this research. It was exciting, stimulating, and I hope helpful to several scholarly fields.

I look forward to hearing all about your European adventure.

Kindest personal regards from my wife and myself.

Cordially,

ERIC P. NEWMAN NUMISMATIC  
EDUCATION SOCIETY

EPN/att

Messrs. Aubry Dela Motraye coming with Doct.<sup>r</sup> Chew a few  
 days past to get me to impress him a bout Ten-  
 cans. I thought fit to make an addition to them as I had  
 opportunities. ~~An hour or so~~

~~Opportunity~~ & have sent to Peter Collinson for him (8<sup>th</sup> 1733) order  
Let<sup>tr</sup>

- |                               |                     |
|-------------------------------|---------------------|
| 1. <i>Calamus</i>             | a Flag              |
| 2. <i>Wild Hare</i>           | 1                   |
| 3. <i>English Hare</i>        | 1                   |
| 4. <i>Strawberry</i>          | a Branch & 1        |
| 5. <i>A kind of this leaf</i> | ADLM                |
| 6. <i>Another leaf</i>        | 1                   |
| 7. <i>Blackberry</i>          | 5 in a Branch       |
| 8. <i>Another leaf</i>        | 1                   |
| 9. <i>Food plant</i>          | a Branch            |
| 10. <i>Thistles</i>           | 3 in 1              |
| 11. <i>Red Cedar</i>          | a Branch            |
| 12. <i>Aspen</i>              | a Branch            |
| 13. <i>Turnerich</i>          | 1                   |
| 14. <i>May apple</i>          | 1                   |
| 15. <i>Tobacco</i>            | 1                   |
| 16. <i>Low Thistle</i>        | 2                   |
| 17. <i>Poplar</i>             | 1                   |
| 18. <i>Parrot</i>             | 1                   |
| 19. <i>Laurel</i>             | 1                   |
| 20. <i>Ash</i>                | 1                   |
| 21. <i>Wild Plum</i>          | 1                   |
| 22. <i>Squirrgraph</i>        | 1                   |
| 23. <i>Wied Pear</i>          | 1                   |
| 24. <i>Crab</i>               | 2                   |
| 25. <i>Nettle</i>             | 1                   |
| 26. <i>Black Thorn</i>        | 1                   |
| 27. <i>White Thorn</i>        | 1                   |
| 28. <i>Oaks</i>               | a select 1          |
| 29. <i>Solomon's Seal</i>     | a Branch            |
| 30. <i>Tansey</i>             | a Branch to fill up |
| 31. <i>Ninepin</i>            | sort, mostly wild   |
| 32. <i>or Herb</i>            | w. 1                |
| 33. <i>Wied knot</i>          | 1                   |
| 34. <i>Wied knot</i>          | 1                   |
| 35. <i>Wied knot</i>          | 1                   |
| 36. <i>Wied knot</i>          | 1                   |
| 37. <i>Wied knot</i>          | 1                   |
| 38. <i>Wied knot</i>          | 1                   |
| 39. <i>Wied knot</i>          | 1                   |
| 40. <i>Wied knot</i>          | 1                   |
| 41. <i>Wied knot</i>          | 1                   |
| 42. <i>Wied knot</i>          | 1                   |
| 43. <i>Wied knot</i>          | 1                   |
| 44. <i>Wied knot</i>          | 1                   |
| 45. <i>Wied knot</i>          | 1                   |
| 46. <i>Wied knot</i>          | 1                   |



Agrimony  
 Aloë  
 Anemone Canadensis\*  
 Arasmar  
 Alder  
 Althea  
 May Apple  
 Wild Angelica  
 Amaranth  
 Arabacca  
 Arrowhead  
 Aspen  
 Blackberry  
 Carolina Bean  
 Burdock  
 Bellwort  
 Bloodroot\*  
 Vine Brier  
 Beach  
 Cottonwood\*  
 Betony  
 Bay  
 Basil  
 Water Beach  
 Barberry  
 Balm  
 Buckwheat  
 Birch  
 Caterpillar  
 Ground Cherry  
 Cornish. Haze  
~~Celandine~~  
 Currant  
 Horse Chestnut  
 Del. Cotton Wood  
 Cucumber  
 Clove  
 English Small Black Cherry  
 Black Currant

White Currant  
 Red Currant  
 Cat Tail Grass  
 Cork  
 Dittany  
 Dogwood  
 Duke  
 Dock  
 Elm  
 Elecampane  
 Feathersfew  
 Fig  
 Flea  
 Feverfew  
 Fox Grape  
 French Small Black Grapevine  
 Wild Grape  
 Grapevine or Birdweed  
 Fine English Grape  
 Gold  
 Gum  
 Elder rose  
 Sweet Gum  
 Green Gooseberry  
 Red Gooseberry  
 Gourd

Goat's Rue  
 Kattlesnake Goldenrod  
 Horseradish  
 Honeycuckle  
 Hellbore  
 Hazle  
 Hickory  
 Indian Hemp  
 Horsehair  
 Swamp Nettlebram  
 White Heart  
 Black Heart  
 May Heart  
 Hemlock  
 Hellebore  
 Hebe  
 Holly  
 Hesper  
 Ivy  
 Judas Tree  
 Jerusalem Artichoke  
 Silver Laurel  
 Locust  
 Linden  
 Lime  
 Small Leaf Locust

Maidenhair  
 Mallow  
 Mulberry  
 English Mulberry  
 Maple  
 Marjoram  
 Marygold  
 Mullin  
 Cat Mint  
 Motherwort  
 White Mulberry  
 May Weed  
 Mustard  
 Mint  
  
 Nightshade  
 Nasturtium  
 Spanish Needle  
 Nettle  
 Leaf Nettle  
 Night Shade  
  
  
 Oak  
 Okra  
 Black Oak  
 Chestnut Oak  
 Oak of Cappadocia  
  
 Pocom  
 Palm

Panax  
 Plane  
 Penny Royal  
 Potato  
 Pine Apple  
 Pidgeon Pea  
 Parsimon  
 Poke  
 Batchelor Pear  
 Poplar  
 Water Plantain  
 English Plantain  
 Pome  
 Paw-Paw  
 Sweet Potato  
  
 Rubbarb  
 Raspberry  
 Mountain Raspberry  
 Elder Rose  
 Rattle Snake Weed  
  
~~Nightshade~~ Sage  
 Red Sage  
 Clear, Stalk  
 Sumack  
 Solomon Seal  
 Sarsaparilla  
 Snake root  
 Savicle  
 Southernwood  
 Sunflower  
 Squash  
 Saffron  
 Skunkweed

Scabious  
 Samia

Tobacco  
 Sow Thistle  
 Teasel  
 Thorn  
 Tulip Tree  
 Tansey  
 Thistle  
 Thoroughwort

Veteriset

St John's Wort  
 English Walnut  
 Watermelon  
 Willow  
 Wormwood

Yam  
 Yew

the #2<sup>cc</sup> design may be a Thistle  
Mint (joke can be made)

Lead Nettle

Saxifraga cuneifolia

"First of the Lead Tree lost to V.H. from Chelsea Engraver  
after 24 hours lying in water the 1st July, 1733"

"Masterpiece lost from Jno Stephen Bonagatti's 25<sup>th</sup>  
Aug.<sup>r</sup> 1733 - lost in water & done by 27<sup>th</sup>"

"Engraved by the Greatest and best Engraver in the Universe"

"Done 3<sup>th</sup> of June, 1734 in my new Press after the best of success yet"

"This one with new Hand Ball 29<sup>th</sup> July, 1734"

"Asarabacca From Dr. Gray - west India Plant"

"7<sup>th</sup> of June, 1734 Moist Thier'out"

"These were done in my new Press which Joseph  
Watkins made & now brought Home 2<sup>d</sup> of May, 1734"

"Done July 25<sup>th</sup> 1742, with my Velvet Ball"

"Done ~~the~~ 29<sup>th</sup> July, 1742 commonly with Lead  
or Velvet Ball."

## MEMORANDUM

November 4, 1963

TO Mr. Kneeland McNulty

FROM Eric P. Newman

Dear Kneeland:

For my article, I have determined that to make it complete I should illustrate the rattle snake herb in Poor Richard's Almanac. No doubt you have a photograph which you used to make the cut on page 238 of your catalogue. Could you get me a print of the photograph you used?

EEN/atb



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA 1

November 8, 1963

Mr. Eric P. Newman  
Eric P. Newman Typographic Education Society  
4440 Cecil Avenue  
St. Louis 8, Missouri

Dear Mr. Newman:

Many thanks for your interesting article to which I have made some suggested changes. It is good to see your efforts finally collected and annotated, and we will be anxious to see them in print. Your measure in this work only reflects our own feelings - it has been great fun.

We no longer have a photographic print of the RattleSnake Mark. Our only one was consumed by publicity. Anyway, you shall have the permission of the paper to reproduce it, so I suggest you write to Mrs. Gertrude D. Hess, Librarian, American Philosophical Society Library, 56th and Chestnut Streets, of this city, for a photograph and permission to use it.

I hope we shall meet again. We had a wonderful time abroad.

Please give my best to your wife.

Cordially yours,

*Frederick McMillty*

Frederick McMillty  
Associate Curator of Prints and Drawings

November 11, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Kneeland:

Professor Miller was kind enough to go over the text of my article and make a large number of suggestions.

What I need from you, promptly, is the picture of the Rattlesnake herb from "Poor Richard" as I am being pushed for the final revision for publication. Can you help me promptly on that picture?

Cordially,

ERIC P. NEWMAN

EPN/a tb



PHILADELPHIA MUSEUM OF ART • FAIRMOUNT

BENJAMIN FRANKLIN PARKWAY AT TWENTY-SIXTH STREET • P.O. Box 7646 PHILADELPHIA

November 12, 1963

Mr. Eric P. Newman  
Eric P. Newman Numismatic Education Society  
6450 Cecil Avenue  
St. Louis 5, Missouri

Dear Mr. Neuman:

I hope you have received your manuscript, with suggested changes. It arrived here on Thursday, my first day back to work. It was mailed back to you, first class, on Friday, with a letter explaining that we do not have a photograph of the rattlesnake verb, and that it should be ordered, with request for permission to publish, from Mrs. Gertrude D. Hess of the American Philosophical Society Library, 5th and Chestnut Sts.

I am terribly sorry that you have been inconvenienced, but I could not possibly have been more prompt.

Cordially,

*Kneeland*

Kneeland McElrath  
Associate Curator of Prints

November 18, 1963

Mr. Kneeland McNulty  
Philadelphia Museum of Art  
P.O.Box 7646  
Philadelphia, Penna.

Dear Kneeland:

I am very grateful for your immediate cooperation with respect to my article. I know how much you had to do, coming home from Europe.

The photograph of the rattlesnake herb will be arriving promptly, and that will complete my illustrations.

The article will be published in February, in The Numismatist and reprints will be made.

Are you planning to publish your article, and, if so, please let me be of assistance to you in that respect.

Sincerely yours,

ERIC P. NEWMAN

EPN/atb



JOHN WORK GARRETT LIBRARY OF THE JOHNS HOPKINS UNIVERSITY

ELIZABETH BAER, *Librarian*  
SARAH E. FREEMAN, *Curator, Numismatics*



EVERGREEN HOUSE

4545 NORTH CHARLES STREET  
BALTIMORE 10, MARYLAND

Mr. Will F. Friedman  
Misses Elizabeth Adams, Mrs.  
-100 Washington Avenue  
St. Louis 2, Missouri

Dear Sirs:

Thanks a lot for the receipt of your article on soap drinking. I will have to agree that you seem to be right. There has not been time enough to read it through at yet, and I have turned it over to my colleagues this morn, and it is equally if not more so, interested from the point of view of illustrations and particularly books. We are planning to catalogue it into our main library, and not have it in nonclassical.

As to your inquiry about the above Constellations. The order of all four of our plates are unimportant. It is what I present as it is described as stylized leaves. They look more like stylized olive branches with three long petals each. I must admit that I do not know very much about botany, and have become impatient about learning such of them. However, I do not believe that they could all be from the same wild machine, unless there is some process of which the results of such machine can be reduced.

Our "leaves" are identical in style on all four plates. The size, however, of the individual three leaf group is noticeably smaller on the plate than on the mark, and more delicate still on the 1)). This small plate is also considerably thinner, and somewhat thicker on one side, so that when the full width of the three petals isn't on the top all the way around. This is a very aesthetic description, but I hope you know what I mean.

Yours,

Sally

P.S. The two petals - three lines, not of like size

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